TABLE 5

Federal obligations for research and experimental development, by agency and type of R&D: FY 2019
(Dollars in thousands)

| Agency | Total R&D | Basic research | Applied research | Experimental development | | |
|--|---------------|-------------------|------------------|--------------------------|---------------------|------------------|
| | | | | Total | Advanced technology | Major systems |
| All agencies | 142,424,206.6 | 40,017,257.6 | 41,100,526.5 | 61,306,422.5 | na | na |
| Departments | | | | | | |
| Department of Agriculture | 2,637,117.5 | 1,056,543.3 | 1,350,427.2 | 230,147.0 | na | na |
| Agricultural Marketing Service | 7,710.5 | 0.0 | 3,855.3 | 3,855.3 | na | na |
| Agricultural Research Service | 1,292,374.2 | 646,187.1 | 516,949.7 | 129,237.4 | na | na |
| Animal and Plant Health Inspection Service | 39,476.0 | 18,812.2 | 0.0 | 20,663.8 | na | na |
| Economic Research Service | 85,626.4 | 0.0 | 85,626.4 | 0.0 | na | na |
| Forest Service | 327,174.4 | 84,664.4 | 170,325.6 | 72,184.4 | na | na |
| National Agricultural Statistics Service | 9,469.1 | 0.0 | 5,263.0 | 4,206.1 | na | na |
| National Institute of Food and Agriculture | 871,374.4 | 306,879.6 | 564,494.8 | 0.0 | na | na |
| Rural Business-Cooperative Service | 3,912.5 | 0.0 | 3,912.5 | 0.0 | na | na |
| Department of Commerce | 1,534,715.8 | 253,176.4 | 1,028,763.0 | 252,776.5 | na | na |
| National Institute of Standards and Technology | 712,349.7 | 253,176.4 | 449,790.2 | 9,383.1 | na | na |
| National Oceanic and Atmospheric Administration | 718,863.6 | 0.0 | 541,827.6 | 177,036.0 | na | na |
| National Telecommunications and Information Administration | 7,900.0 | 0.0 | 7,900.0 | 0.0 | na | na |
| U.S. Census Bureau | 95,602.6 | 0.0 | 29,245.2 | 66,357.3 | na | na |
| Department of Defense | 58,779,506.7 | 2,510,170.5 | 5,758,234.9 | 50,511,101.4 | 6,923,229.2 | 43,587,872.3 |
| Defense Advanced Research Projects Agency | 3,320,955.0 | 478,318.0 | 1,264,987.0 | 1,577,650.0 | 1,411,522.0 | 166,128.0 |
| Department of the Air Force | 15,076,760.6 | 559,429.2 | 1,547,457.8 | 12,969,873.5 | 836,861.0 | 12,133,012.6 |
| Department of the Army | 10,274,787.1 | 494,668.0 | 1,461,518.3 | 8,318,600.8 | 1,636,954.0 | 6,681,646.8 |
| Department of the Navy | 15,341,234.6 | 655,662.5 | 935,022.4 | 13,750,549.8 | 1,008,189.3 | 12,742,360. |
| Other defense agencies | 14,765,769.4 | 322,092.8 | 549,249.3 | 13,894,427.3 | 2,029,702.9 | 11,864,724.4 |
| Department of Education | 235,843.1 | 57,276.0 | 131,380.1 | 47,187.0 | na | na |
| Department of Energy | 14,376,397.6 | 5,074,534.1 | 6,295,185.2 | 3,006,678.3 | na | na |
| Advanced Research Projects Agency— Energy | 404,954.5 | 0.0 | 202,477.3 | 202,477.3 | na | na |
| Electricity Delivery and Energy Reliability | 137,744.0 | 14,649.0 | 72,345.0 | 50,750.0 | na | na |
| Energy Efficiency and Renewable Energy | 1,695,831.0 | 0.0 | 1,270,334.0 | 425,497.0 | na | na |
| Environmental Management | 26,129.8 | 0.0 | 8,622.8 | 17,507.0 | na | na |
| Fossil Energy | 659,000.0 | 33,000.0 | 626,000.0 | 0.0 | na | na |
| National Nuclear Security Administration | 5,740,588.9 | 101,820.0 | 3,568,301.2 | 2,070,467.7 | na | na |
| Defense Programs | 3,660,447.3 | 0.0 | 3,434,107.1 | 226,340.2 | na | na |
| Naval Nuclear Propulsion Program | 1,788,618.0 | 0.0 | 0.0 | 1,788,618.0 | na | na |
| Office of Defense Nuclear Nonproliferation | 291,523.6 | 101,820.0 | 134,194.1 | 55,509.5 | na | na |
| Nuclear Energy | 606,393.0 | 0.0 | 378,272.7 | 228,120.4 | na | na |
| Office of Cybersecurity, Energy Security, and Emergency Response | 51,881.2 | 989.0 | 39,033.2 | 11,859.0 | na | na |
| Office of Science | 5,053,875.1 | 4,924,076.1 | 129,799.0 | 0.0 | na | na |
| Department of Health and Human Services | 39,191,188.6 | 19,099,834.2 | 19,254,566.8 | 836,787.6 | na | na |
| Administration for Children and Families | 2,254.8 | 0.0 | 2,254.8 | 0.0 | na | na |
| Administration for Community Living | 83,117.5 | 0.0 | 65,922.4 | 17,195.1 | na | na |
| Agency for Healthcare Research and Quality | 338,000.0 | 0.0 | 308,145.0 | 29,855.0 | na | na |

TABLE 5

Federal obligations for research and experimental development, by agency and type of R&D: FY 2019
(Dollars in thousands)

| | | | | Expe | erimental developm | ent |
|--|--------------|-------------------|------------------|-----------|---------------------|------------------|
| Agency | | Basic research | Applied research | Total | Advanced technology | Major systems |
| Agency for Toxic Substances and Disease Registry | 7,000.0 | 0.0 | 7,000.0 | 0.0 | na | na |
| Biomedical Advanced Research and Development Authority | 736,178.0 | 0.0 | 0.0 | 736,178.0 | na | na |
| Centers for Disease Control and Prevention | 419,425.9 | 77,206.4 | 288,660.1 | 53,559.4 | na | na |
| Centers for Medicare and Medicaid Services | 133,488.6 | 0.0 | 133,488.6 | 0.0 | na | na |
| Food and Drug Administration | 493,052.5 | 0.0 | 493,052.5 | 0.0 | na | na |
| Health Resources and Services Administration | 32,625.8 | 2,627.8 | 29,998.0 | 0.0 | na | na |
| National Institutes of Health | 36,929,000.0 | 19,020,000.0 | 17,909,000.0 | 0.0 | na | na |
| Office of the Secretary of Health and Human Services | 17,045.5 | 0.0 | 17,045.5 | 0.0 | na | na |
| Office of the Assistant Secretary for Planning and Evaluation | 17,045.5 | 0.0 | 17,045.5 | 0.0 | na | na |
| Department of Homeland Security | 647,153.2 | 46,283.8 | 233,243.0 | 367,626.4 | na | na |
| Countering Weapons of Mass Destruction Office | 81,421.6 | 5,376.7 | 25,817.5 | 50,227.4 | na | na |
| Cybersecurity and Infrastructure Security Agency | 13,126.0 | 0.0 | 13,126.0 | 0.0 | na | na |
| Science and Technology Directorate | 510,549.9 | 40,907.1 | 188,444.5 | 281,198.3 | na | na |
| Transportation Security Administration | 20,600.0 | 0.0 | 0.0 | 20,600.0 | na | na |
| U.S. Coast Guard | 19,516.0 | 0.0 | 5,855.0 | 13,661.0 | na | na |
| U.S. Secret Service | 1,939.7 | 0.0 | 0.0 | 1,939.7 | na | na |
| Department of Housing and Urban Development | 60,997.5 | 39,078.9 | 21,918.6 | 0.0 | na | na |
| Department of the Interior | 826,819.3 | 81,447.2 | 608,302.9 | 137,069.2 | na | na |
| Bureau of Indian Affairs | 5,000.0 | 0.0 | 5,000.0 | 0.0 | na | na |
| Bureau of Land Management | 20,757.0 | 867.0 | 12,857.0 | 7,033.0 | na | na |
| Bureau of Ocean Energy Management | 85,506.0 | 0.0 | 65,080.0 | 20,426.0 | na | na |
| Bureau of Reclamation | 23,167.0 | 0.0 | 16,514.0 | 6,653.0 | na | na |
| Bureau of Safety and Environmental Enforcement | 9,087.1 | 182.9 | 7,365.0 | 1,539.2 | na | na |
| National Park Service | 10,129.7 | 857.3 | 9,272.4 | 0.0 | na | na |
| Office of Surface Mining Reclamation and Enforcement | 327.5 | 0.0 | 327.5 | 0.0 | na | na |
| U.S. Fish and Wildlife Service | 32,650.0 | 0.0 | 32,650.0 | 0.0 | na | na |
| U.S. Geological Survey | 640,195.0 | 79,540.0 | 459,237.0 | 101,418.0 | na | na |
| Department of Justice | 121,221.9 | 21,228.1 | 84,168.4 | 15,825.5 | na | na |
| Bureau of Prisons | 6,596.0 | 0.0 | 1,249.0 | 5,347.0 | na | na |
| Federal Bureau of Investigation | 998.4 | 0.0 | 998.4 | 0.0 | na | na |
| Office of Justice Programs | 113,627.5 | 21,228.1 | 81,920.9 | 10,478.5 | na | na |
| Department of Labor | 4,366.1 | 0.0 | 4,366.1 | 0.0 | na | na |
| Employee Benefits Security Administration | 2,642.1 | 0.0 | 2,642.1 | 0.0 | na | na |
| Occupational Safety and Health Administration | 1,724.0 | 0.0 | 1,724.0 | 0.0 | na | na |
| Department of State | 62,200.0 | 0.0 | 62,200.0 | 0.0 | na | na |
| Department of Transportation | 1,012,477.7 | 0.0 | 745,596.2 | 266,881.6 | na | na |
| Federal Aviation Administration | 387,021.1 | 0.0 | 193,114.6 | 193,906.5 | na | na |

TABLE 5

Federal obligations for research and experimental development, by agency and type of R&D: FY 2019
(Dollars in thousands)

| Agency | Total R&D | Basic research | Applied research | Experimental development | | |
|---|--------------|-------------------|------------------|--------------------------|---------------------|------------------|
| | | | | Total | Advanced technology | Major systems |
| Federal Highway Administration | 451,624.9 | 0.0 | 414,879.6 | 36,745.3 | na | na |
| Federal Motor Carrier Safety Administration | 7,766.4 | 0.0 | 7,766.4 | 0.0 | na | na |
| Federal Railroad Administration | 39,427.3 | 0.0 | 31,936.1 | 7,491.2 | na | na |
| Federal Transit Administration | 2,750.0 | 0.0 | 2,750.0 | 0.0 | na | na |
| National Highway Traffic Safety Administration | 76,323.0 | 0.0 | 76,323.0 | 0.0 | na | na |
| Office of the Secretary of Transportation | 19,776.0 | 0.0 | 8,210.9 | 11,565.1 | na | na |
| Pipeline and Hazardous Materials Safety Administration | 27,789.1 | 0.0 | 10,615.6 | 17,173.4 | na | na |
| Department of the Treasury | 57,143.8 | 10,298.9 | 35,878.8 | 10,966.1 | na | na |
| Bureau of Engraving and Printing | 56,966.1 | 10,285.0 | 35,715.0 | 10,966.1 | na | na |
| U.S. Mint | 177.7 | 13.9 | 163.8 | 0.0 | na | na |
| Department of Veterans Affairs | 1,507,870.1 | 629,101.4 | 848,504.3 | 30,264.4 | na | na |
| Other agencies | | | | | | |
| Administrative Office of the U.S. Courts | 6,448.3 | 0.0 | 6,448.3 | 0.0 | na | na |
| Agency for International Development | 220,588.2 | 0.0 | 171,713.9 | 48,874.4 | na | na |
| Appalachian Regional Commission | 898.9 | 0.0 | 898.9 | 0.0 | na | na |
| Consumer Product Safety Commission | 856.3 | 0.0 | 856.3 | 0.0 | na | na |
| Environmental Protection Agency | 485,305.0 | 0.0 | 404,784.0 | 80,521.0 | na | na |
| Federal Communications Commission | 2,005.3 | 0.0 | 2,005.3 | 0.0 | na | na |
| Federal Trade Commission | 6,003.2 | 0.0 | 6,003.2 | 0.0 | na | na |
| Library of Congress | 1,892.5 | 0.0 | 867.6 | 1,024.9 | na | na |
| National Aeronautics and Space Administration | 13,570,133.5 | 5,688,975.1 | 2,422,519.2 | 5,458,639.2 | na | na |
| National Archives and Records Administration | 511.0 | 0.0 | 511.0 | 0.0 | na | na |
| National Science Foundation | 5,996,140.0 | 5,212,090.0 | 784,050.0 | 0.0 | na | na |
| Nuclear Regulatory Commission | 74,856.6 | 780.0 | 74,076.6 | 0.0 | na | na |
| Patient-Centered Outcomes Research Trust Fund | 578,430.5 | 0.0 | 578,430.5 | 0.0 | na | na |
| Smithsonian Institution | 236,440.0 | 236,440.0 | 0.0 | 0.0 | na | na |
| Social Security Administration | 146,241.0 | 0.0 | 146,241.0 | 0.0 | na | na |
| Tennessee Valley Authority | 9,666.0 | 0.0 | 5,614.0 | 4,052.0 | na | na |
| U.S. Agency for Global Media | 6,107.0 | 0.0 | 6,107.0 | 0.0 | na | na |
| U.S. Postal Service | 26,664.2 | 0.0 | 26,664.2 | 0.0 | na | na |

na = not applicable; data were not collected at this level of detail for this agency or subagency.

Note(s):

Because of rounding, detail may not add to total. Only those agencies and subdivisions that had obligations in variables represented by this table appear in the table. See technical table A-2 for additional notes associated with the agencies listed in this table.

Source(s)

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development, FYs 2019-20.